

**DEPARTMENT OF JUSTICE
Crime Lab Request for Equipment**

The State Crime Lab relies on highly sophisticated, expensive instrumentation for much of the analysis it does. The lab has more than 44 different instruments, some of them worth up to \$197,000. Some of the instruments are more than 10 years old and are in need of replacement. The lab is requesting \$115,000 for each of the next two fiscal years.

Thermal Cyclers

These instruments are used in the amplification of DNA, a method of replicating DNA until there is an adequate sample to test. The lab has three thermal cyclers, and on two of them, the sensitivity is inconsistent, forcing the lab to re-run samples. With the workload in this area of the laboratory, it is necessary to have three instruments running at the same time. Cost: \$8,000 each.

Glass Refractive Index Measurement II (GRIM)

This instrument is used for glass analysis. As the glass manufacturing industry has advanced, refractive indices are becoming more and more similar. To discriminate between types of glass, the instrument must measure the refractive index to the fifth decimal place. The instrument would be new to the lab. Cost: \$45,000

Comparison Microscope

There are two forensic scientists in the Firearms/Toolmark Section of the laboratory, and the primary instrument for this section is the comparison microscope. Since the lab only has one microscope, the scientists must schedule times to use it. Another comparison scope would allow both scientists to work at the same time. This purchase would replace an old instrument that is no longer useable. Cost: \$62,000

Gas Chromatograph with a Mass Selective Detector (GC/MS)

These instruments are used in the Chemistry and Toxicology Section of the lab to detect the presence of specific drugs. Typically, these instruments are replaced after about five or six years, and the Montana lab has had its machines for more than seven years. If repairs are needed, it can be difficult to find replacement parts. Also, new instruments are faster and more sensitive. Cost: \$95,000

Stereomicroscope with Portable Stand

This stereomicroscope would be used by the Trace Evidence and DNA/Serology Sections of the lab and would be placed in a shared evidence-processing room. The microscope would be used in violent and/or sexual assault cases, where identification and recovery of trace evidence – like hair and fibers – is critical. Cost: \$12,750